

National Center for Post-Traumatic Stress Disorder

PILOTS Database Search: “Emergency Personnel”

Selective List of Significant Publications (with abstracts)

This bibliography is the product of a search of our PILOTS database, an index to 20,000 publications on psychotrauma, for documents to which the descriptor “Emergency Personnel” was applied by our indexers. This list is in alphabetical order by author. Please note that inclusion in this list does not constitute an endorsement of any of these publications by the National Center for PTSD.

Carr, Vaughan J, Lewin, Terry J, Webster, Rosemary A, and Kenardy, Justin A. *A synthesis of the findings from the Quake Impact Study: a two-year investigation of the psychosocial sequelae of the 1989 Newcastle earthquake.* Social Psychiatry and Psychiatric Epidemiology 32(3): 123-136. April 1997.

Abstract: This paper summarises the major findings from the Quake Impact Study (QIS), a four-phase longitudinal project that was conducted in the aftermath of the 1989 Newcastle (Australia) earthquake. A total of 3,484 subjects participated in at least one component of the QIS, comprising a stratified sample of 3,007 drawn from community electoral rolls and 477 from specially targeted supplementary samples (the injured, the displaced, the owners of damaged businesses, and the helpers). Subjects' initial earthquake experiences were rated in terms of weighted indices of exposure to threat and disruption. Psychological morbidity was measured at each phase using the General Health Questionnaire (GHQ-12) and the Impact of Event Scale (IES). Selected findings and key conclusions are presented for each of six areas of investigation: service utilisation during the first 6 months post-disaster; patterns of earthquake experience and short-term (6-month) psychosocial outcome; earthquake exposure and medium term (2-year) psychosocial outcome; vulnerability factors and medium-term psychosocial outcome; specific community groups at increased risk (e.g., the elderly and immigrants from non-English-speaking backgrounds); the effects of stress debriefing for helpers. Threshold morbidity (i.e. likely caseness) rates are also presented for a broad range of subgroups. In addition to presenting an overview of the QIS, this paper synthesises the major findings and discusses their implications for future disaster management and research from a mental health perspective. [Author Abstract]
PILOTS ID Number: 09199

Clohessy, Sue and Ehlers, Anke. *PTSD symptoms, response to intrusive memories and coping in ambulance service workers.* British Journal of Clinical Psychology 38(3): 251-265. September 1999.

Abstract: **OBJECTIVES:** To examine the relationship of coping strategies and responses to intrusive memories with PTSD and other psychiatric symptoms in ambulance service workers.

METHOD: 56 ambulance service workers described the most distressing aspects of their work and completed questionnaires designed to measure their coping strategies in dealing with distressing incidents. They also described their intrusive memories of particularly distressing incidents and completed a questionnaire designed to measure their interpretation of these intrusions and their responses to them. In addition, they completed the Post-traumatic Stress Symptom Scale and the General Health Questionnaire.

RESULTS: Of the participants, 21 percent met DSM-III-R criteria for PTSD, and 22 percent met GHQ screening criteria for psychiatric symptoms. Wishful thinking and mental disengagement when confronted with critical incidents at work, negative interpretations of intrusive memories, and maladaptive responses to these memories (rumination, suppression and dissociation) correlated with PTSD severity.

CONCLUSION: The results are consistent with the hypothesis that coping strategies and responses to intrusive memories that prevent emotional processing of the distressing event maintain PTSD. They also support Ehlers and Steil's hypotheses about the role of negative interpretations of post-traumatic intrusions in PTSD. A substantial subgroup of emergency service personnel may need support in processing distressing incidents at work and may

benefit from information that normalizes post-traumatic symptoms such as intrusions. [Author Abstract]
PILOTS ID Number: 21169

Delahanty, Douglas L, Dougall, Angela Liegey, Craig, Karrie J, Jenkins, Frank J, and Baum, Andrew S.
Chronic stress and natural killer cell activity after exposure to traumatic death. Psychosomatic Medicine 59(5): 467-476. September-October 1997.

Abstract: OBJECTIVE: The present study examined the effects of working at the crash site of USAir Flight 427 on psychological, cardiovascular, and immunological sequelae of stress within 2 months of the recovery work and again 6 months after the crash.

METHOD: A total of 159 workers at the crash site and 41 controls were examined within 2 months of the crash and again 6 months after the crash. Subjects were initially grouped according to whether they had contact with human remains. For a finer-grained analysis of exposure to bodies, subjects were also grouped by degree of exposure, determined by the area in which the workers were stationed. Dependent measures included intrusive thoughts, coping styles, and symptoms reporting, as well as heart rate and blood pressure, and natural killer (NK) cell number and activity.

RESULTS: Workers exposed to body parts at the actual crash site, and those who were exposed to remains without expecting to be, exhibited more symptoms of stress than workers who saw bodies and body parts at the morgue and those who did not see human remains. Non-morgue workers who were exposed to bodies or body parts had the highest levels of intrusive thoughts at both time points, and the highest NK cell activity at Time 1. NK activity in this group decreased to levels comparable with other groups at Time 2.

CONCLUSIONS: Increased NK activity is unusual in chronic stress situations, and may be because of acute stress experienced as a result of being asked to talk and think about the crash. The finding that the more one was exposed to human remains the less distress he or she reported is discussed in terms of adaptation, expectancy, and control.

KEY WORDS: Stress; trauma; natural killer cell activity; intrusive thoughts.

PILOTS ID Number: 09762

Dougall, Angela Liegey, Herberman, Holly B, Delahanty, Douglas L, Inslicht, Sabra S, and Baum, Andrew.
Similarity of prior trauma exposure as a determinant of chronic stress responding to an airline disaster. Journal of Consulting and Clinical Psychology 68(2): 290-295. April 2000.

Abstract: The cumulative effects of trauma were examined in 108 workers at the site of a major air disaster at 4 time points over a year following the crash. The influence of trauma history on chronic distress and physiological arousal associated with the crash were examined. Stress levels were expected to differ on the basis of the similarity of prior trauma exposure to work at the crash site. Prior traumatic exposure that was "dissimilar" to this type of work was associated with greater vulnerability to crash-related stress, that is, more distress and crash-related intrusions during the year following the crash. Accumulation of a variety of different traumatic experiences appeared to sensitize workers to the new stressor and to perpetuate chronic stress. Understanding the role of trauma history is important for improving intervention efforts aimed at alleviating stress following a trauma. [Author Abstract]

PILOTS ID Number: 22250

Leffler, Christopher T and Dembert, Mark L. *Posttraumatic stress symptoms among U.S. Navy divers recovering TWA Flight 800.* Journal of Nervous and Mental Disease 186(9): 574-577. September 1998.

Abstract: Navy divers who participated in recovery efforts after the crash of TWA Flight 800 were compared to Navy divers who did not participate in this assignment. No significant differences were found between the two groups, and no notable posttraumatic stress symptoms were noted. Divers rated exposure to remains of children and isolated work environment as most stressful, while family telephone contact and support and Navy occupational diving training aided coping. [NHF]

PILOTS ID Number: 20551

Marmar, Charles R, Weiss, Daniel S, Metzler, Thomas J, and Delucchi, Kevin L. *Characteristics of emergency services personnel related to peritraumatic dissociation during critical incident exposure.* American Journal of Psychiatry 153(7 Festschrift Supplement): 94-102. July 1996.

Abstract: OBJECTIVE: The aim of this study was to identify characteristics of emergency services personnel related to acute dissociative responses at the time of critical incident exposure, a phenomenon designated "peritraumatic dissociation."

METHOD: The authors studied 157 rescue workers who responded to the Nimitz Freeway collapse during the 1989 Loma Prieta earthquake in the San Francisco Bay Area as well as 201 rescue workers who were not involved in that disaster. Demographics, level of critical incident exposure, perceived threat at the time of exposure, personality attributes (assessed by the Hogan Personality Inventory), coping strategies (assessed by the Ways of Coping Questionnaire), and locus of control were related to subjects' scores on the Peritraumatic Dissociative Experiences Questionnaire.

RESULTS: According to univariate tests, the subjects with clinically meaningful levels of peritraumatic dissociation were younger; reported greater exposure to critical incident stress; felt greater perceived threat; had lower scores on the adjustment, identity, ambition, and prudence scales of the Hogan Personality Inventory; had higher scores on measures of coping by means of escape-avoidance, self-control, and active problem solving; and had greater externality in locus of control. Linear modeling with multiple logistic regression analyses indicated that greater feelings of perceived threat, coping by means of escape-avoidance, and coping by means of self-control were associated with a greater likelihood of being in the peritraumatic dissociation group, above and beyond age and exposure to stress.

CONCLUSIONS: Rescue workers who are shy, inhibited, uncertain about their identity, or reluctant to take leadership roles, who have global cognitive styles, who believe their fate is determined by factors beyond their control, and who cope with critical incident trauma by emotional suppression and wishful thinking are at high risk for acute dissociative responses to trauma and subsequent PTSD. [Author Abstract]

PILOTS ID Number: 07453

McCammon, Susan Lynn. *Emergency medical service workers: occupational stress and traumatic stress.* Paton, Douglas and Violanti, John M. Traumatic stress in critical occupations: recognition, consequences and treatment. 58-86. Springfield, Illinois, Charles C. Thomas. 1996.

Abstract: In the emergency services field there is debate on the extent to which workers are affected by the stresses of emergency work. How do continuous exposure to daily stresses, as well as critical incidents or larger catastrophic events, impact on the psychosocial and occupational functioning of emergency workers? How do characteristics of the job, the worker, and the organization mediate one's experience of stressors and satisfactions? What interventions are available to reduce negative impact and enhance career and personal functioning?

Following is a review of empirical and theoretical literature addressing these questions. For the purpose of this paper, the term "emergency worker" will refer mainly to medical caregivers, both pre-hospital and hospital-based, who work in emergency medical services (EMS). Police, fire and other protective service workers will be included only in discussing those who are first responders to traumatic events. [Introduction]

PILOTS ID Number: 13449

McCammon, Susan Lynn, Durham, Thomas W, Allison, E Jackson, and Williamson, Joseph E. *Emergency workers' cognitive appraisal and coping with traumatic events.* Journal of Traumatic Stress 1(3): 353-372. July 1988.

Abstract: Police, fire, emergency medical, and hospital personnel were surveyed following two disasters in the same county: an apartment building explosion followed 1 year later by a devastating tornado. They completed a symptom checklist, the Coping Inventory, and rated the extent of their support networks. Reported symptoms revealed clinically significant emotional effects postdisaster. More post-traumatic symptoms were reported

following the tornado. Coping theory emphasizing cognitive appraisal was used as the conceptual framework for studying reported adjustment strategies. Workers' comments illustrated the cognitive processes intervening between the emergency events and reactions to them. The most frequently endorsed coping strategies following both events involved attempts to reach cognitive mastery over the event and to ascertain meaning. Strategies of altering activities and finding new interests were not frequently endorsed. A greater number of coping responses were endorsed following the tornado along with strategies which involved seeking support from others. Factor analysis of Coping Inventory responses revealed four factors: seeking of meaning, regaining mastery through individual action, regaining mastery through interpersonal action, and philosophical self-contemplation. [Author Abstract]

KEY WORDS: emergency workers; duty-related stressors; coping strategies; cognitive appraisal; traumatic events.
PILOTS ID Number: 10490

Miller, Laurence. *Tough guys: psychotherapeutic strategies with law enforcement and emergency services personnel.* Psychotherapy 32(4): 592-600. Winter 1995.

Abstract: The men and women who work in law enforcement and emergency services -- the "tough jobs" -- are exposed to special kinds of traumatic events and daily pressures that sometimes overwhelm defenses and result in maladaptive psychological syndromes. By dint of attitude, training, and social norms, these "tough guys" are often resistant to psychotherapy in its traditional forms, and so special therapeutic approaches are required. This article describes the types of stresses and problems experienced by police officers, firefighters, and paramedics, and outlines the psychotherapeutic strategies that may prove most effective in helping the helpers. [Author Abstract]
PILOTS ID Number: 07508

Robinson, Robyn C. *Debriefing with emergency services: Critical Incident Stress Management.* Raphael, Beverley and Wilson, John. Psychological debriefing: theory, practice and evidence. 91-107. Cambridge, Cambridge University Press. 2000.

Abstract: This chapter focuses on Critical Incident Stress Management (CISM) and Critical Incident Stress Debriefing (CISD) in emergency service agencies. In the first section, key terms are defined and then a brief background of emergency service CISM/CISD is described. The conceptual basis for CISM/CISD follows, with the context in which CISM and CISD are applied in emergency services. Evaluation studies of CISM/CISD are reviewed and comments are made about the difficulties that face research efforts in this area. There follows a summary of the effects and risks of CISM/CISD and, finally, a description of the essential elements of debriefing. [Text, pp. 91-92]

PILOTS ID Number: 15958

Schooler, Tonya Y, Dougall, Angela Liegey, and Baum, Andrew. *Cues, frequency, and the disturbing nature of intrusive thoughts: patterns seen in rescue workers after the crash of Flight 427 .* Journal of Traumatic Stress 12(4): 571-585. October 1999.

Abstract: Intrusive thoughts have been indentified as key elements of chronic or traumatic stress, but many questions remain about how they operate and what causes persistence of disturbing intrusions. The present study considers these questions, examining the impact of having intrusive thoughts that are cued by stimuli in one's environment as opposed to uncued intrusions that seem to "come out of the blue." In addition, this research evaluates the extent to which distress accompanying intrusive thoughts shortly after a traumatic event predicts persistence of intrusions over time. Rescue workers who responded to the crash of Flight 427 were studied 4 to 8 weeks, and 6, 9, and 12 months after the disaster. Participants who reported crash-related thoughts that were not prompted by cues showed higher levels of distress than those reporting only cued thoughts or those reporting neither. The magnitude of distress that these thoughts caused in the first 2 months after the crash was important in predicting subsequent frequency of unwanted thoughts. The presence or absence of cues and their role in the maintenance of distress also is discussed. [Author Abstract]

PILOTS ID Number: 14802

Tucker, Phebe, Pfefferbaum, Betty, Vincent, Robert D, Boehler, Sharron D, and Nixon, Sara Jo. *Oklahoma City: disaster challenges mental health and medical administrators.* Journal of Behavioral Health Services and Research 25(1): 93-99. February 1998.

Abstract: Mental health and medical administrators responded to the Oklahoma City bombing with cooperative and overlapping efforts to meet community needs in the wake of terrorism. The major agencies assisted in the immediate rescue response, organized crisis hotlines, prepared mental health professionals to counsel bereaved families and victims, organized debriefing of rescuers, assessed mental health needs of local school children, planned for longer term treatment, and coordinated research efforts to learn from the disaster. Implications to mental health administrators responding to significant acts of terrorism are discussed. [Author Abstract]

PILOTS ID Number: 09501

U.S. National Institute of Mental Health. Emergency Services Branch. *Prevention and control of stress among emergency workers: a pamphlet for team managers.* Rockville, Maryland, National Institute of Mental Health. DHHS publication. 1987.

Abstract: This pamphlet discusses approaches that may be helpful to managers in dealing with disaster-related stress among workers. It suggests interventions before, during, and after disaster. [Text, p. 1]

PILOTS ID Number: 05062

U.S. National Institute of Mental Health. Emergency Services Branch. *Prevention and control of stress among emergency workers: a pamphlet for workers.* Rockville, Maryland, National Institute of Mental Health. DHHS publication. 1987.

Abstract: This pamphlet discusses approaches that have been found to be helpful to workers in dealing with disaster-related stress. It suggests interventions that may be helpful before, during, and after disaster. [Text, p. 1]

PILOTS ID Number: 05063

Weiss, Daniel S, Marmar, Charles R, Metzler, Thomas J, and Ronfeldt, Heidi Marie. *Predicting symptomatic distress in emergency services personnel.* Journal of Consulting and Clinical Psychology 63(3): 361-368. June 1995.

Abstract: This study identified predictors of symptomatic distress in emergency services (EMS) personnel exposed to traumatic critical incidents. A replication was performed in 2 groups: 154 EMS workers involved in the 1989 Interstate 880 freeway collapse during the San Francisco Bay area earthquake, and 213 counterparts from the Bay area and from San Diego. Evaluated predictors included exposure, social support, and psychological traits. Replicated analyses showed that levels of symptomatic distress were positively related to the degree of exposure to the critical incident. Level of adjustment was also related to symptomatic distress. After exposure, adjustment, social support, years of experience on the job, and locus of control were controlled, 2 dissociative variables remained strongly predictive of symptomatic response. The study strengthens the literature linking dissociative tendencies and experiences to distress from exposure to traumatic stressors. [Author Abstract]

PILOTS ID Number: 05904

This search of the PILOTS database was prepared by the National Center for Post-Traumatic Stress Disorder in White River Junction, Vermont, on 24 September 2001. For further information about the National Center or the PILOTS database, visit our website at <www.ncptsd.org> or call (802) 296 5132.